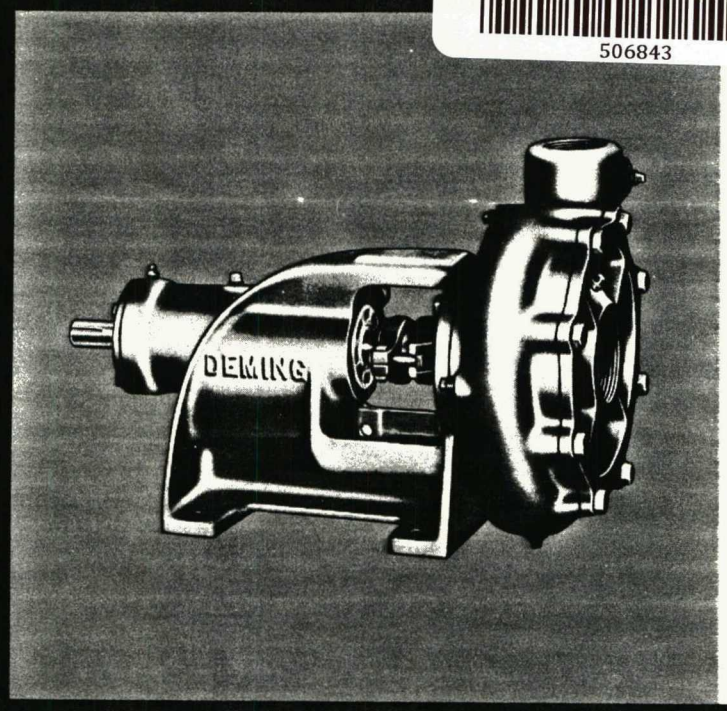
CRANE

DEMING PUMPS

Bulletin No. 4011
Section 14

END SUCTION—FRAME MOUNTED CENTRIFUGAL PUMPS



CAPACITIES TO
1500 G.P.M.

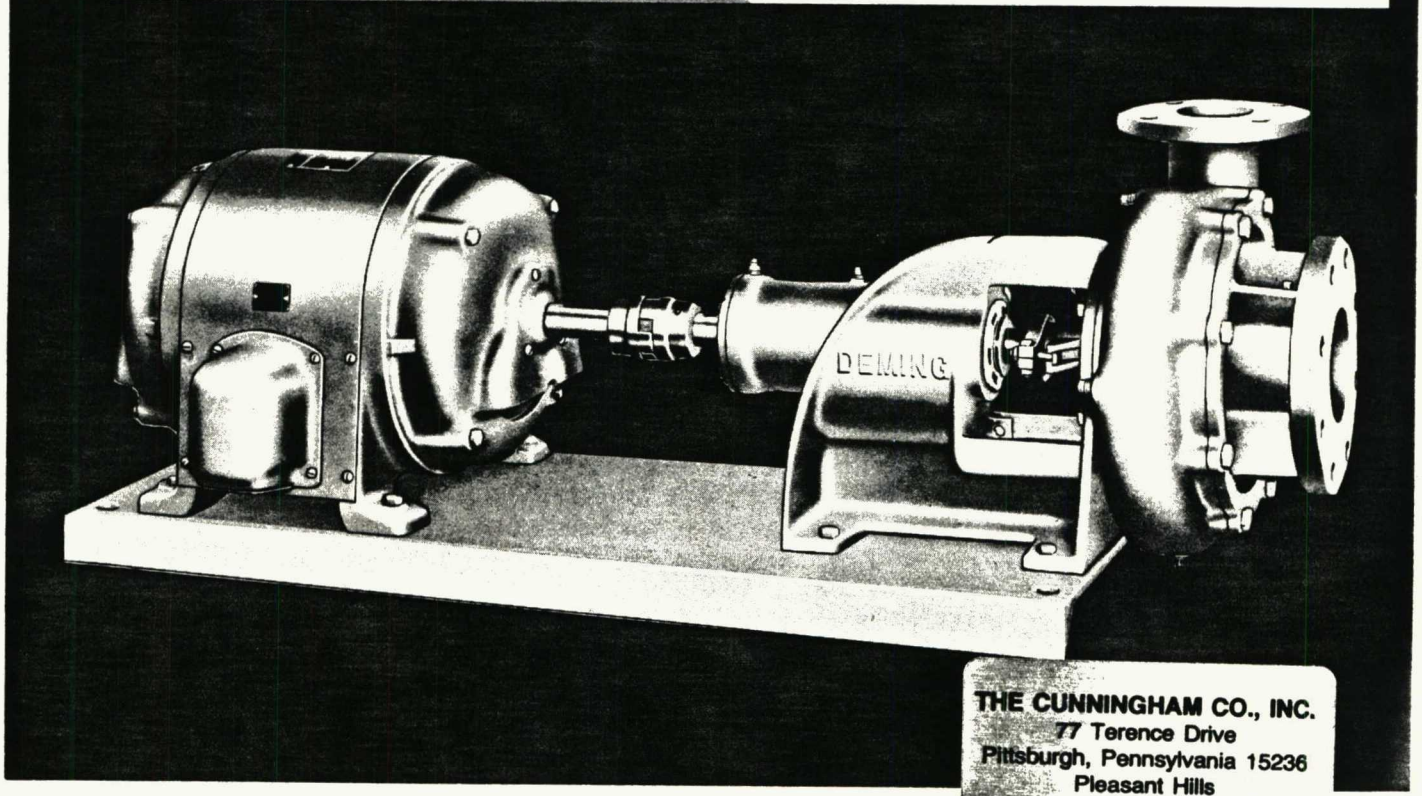
HEADS TO 250 FEET

PACKING BOX
OR MECHANICAL SEAL

ADJUSTABLE IMPELLER

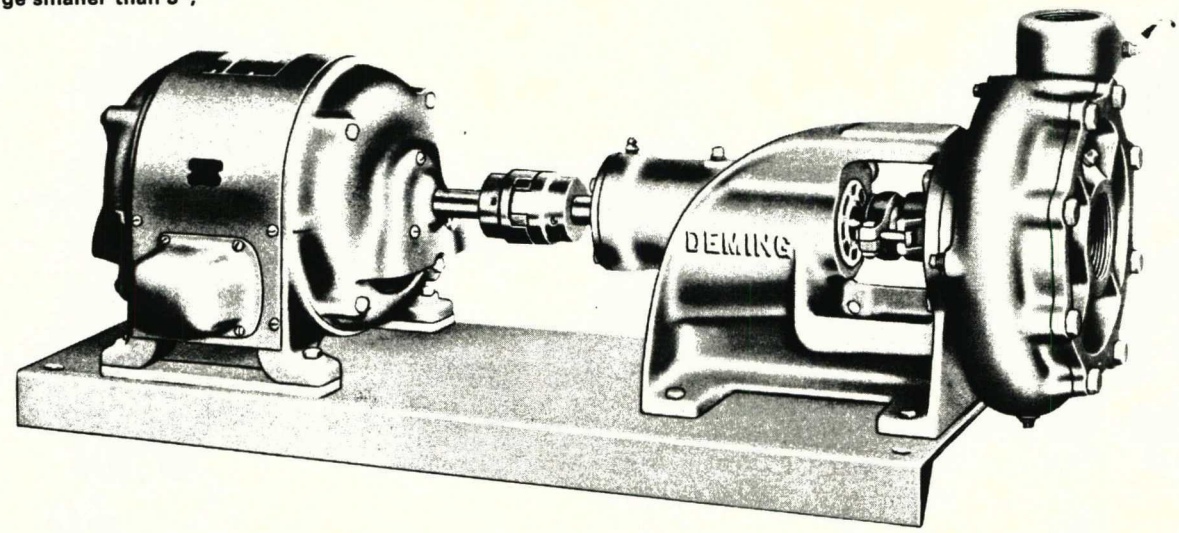
ALL IRON • BRONZE FITTED

ALL BRONZE • STAINLESS STEEL



THE CUNNINGHAM CO., INC.
77 Terence Drive
Pittsburgh, Pennsylvania 15236
Pleasant Hills
(412) 653-0200

Threaded connections are standard construction on all pumps with discharge smaller than 3",



END SUCTION CENTRIFUGAL PUMPS

Figs. 4001, 4011, 4021, and 4021H

Crane-Deming end suction centrifugal pumps are designed to handle a wide range of fluids.

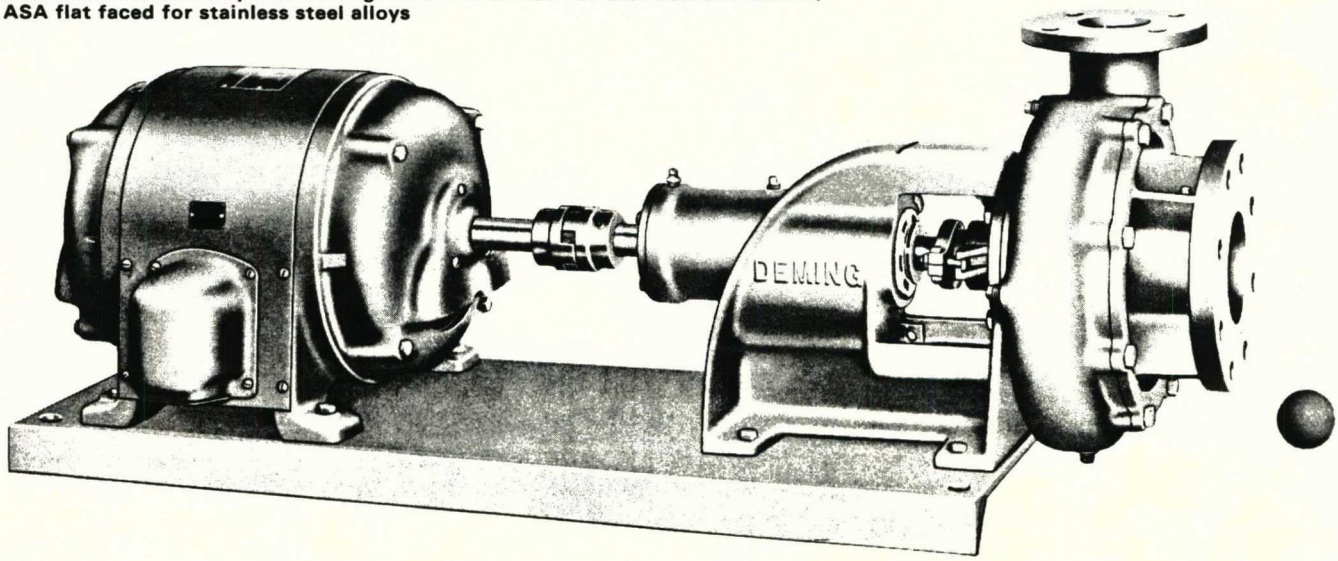
For fluids requiring other than standard cast iron construction, liquid ends, impeller and case components, may be made of special alloys.

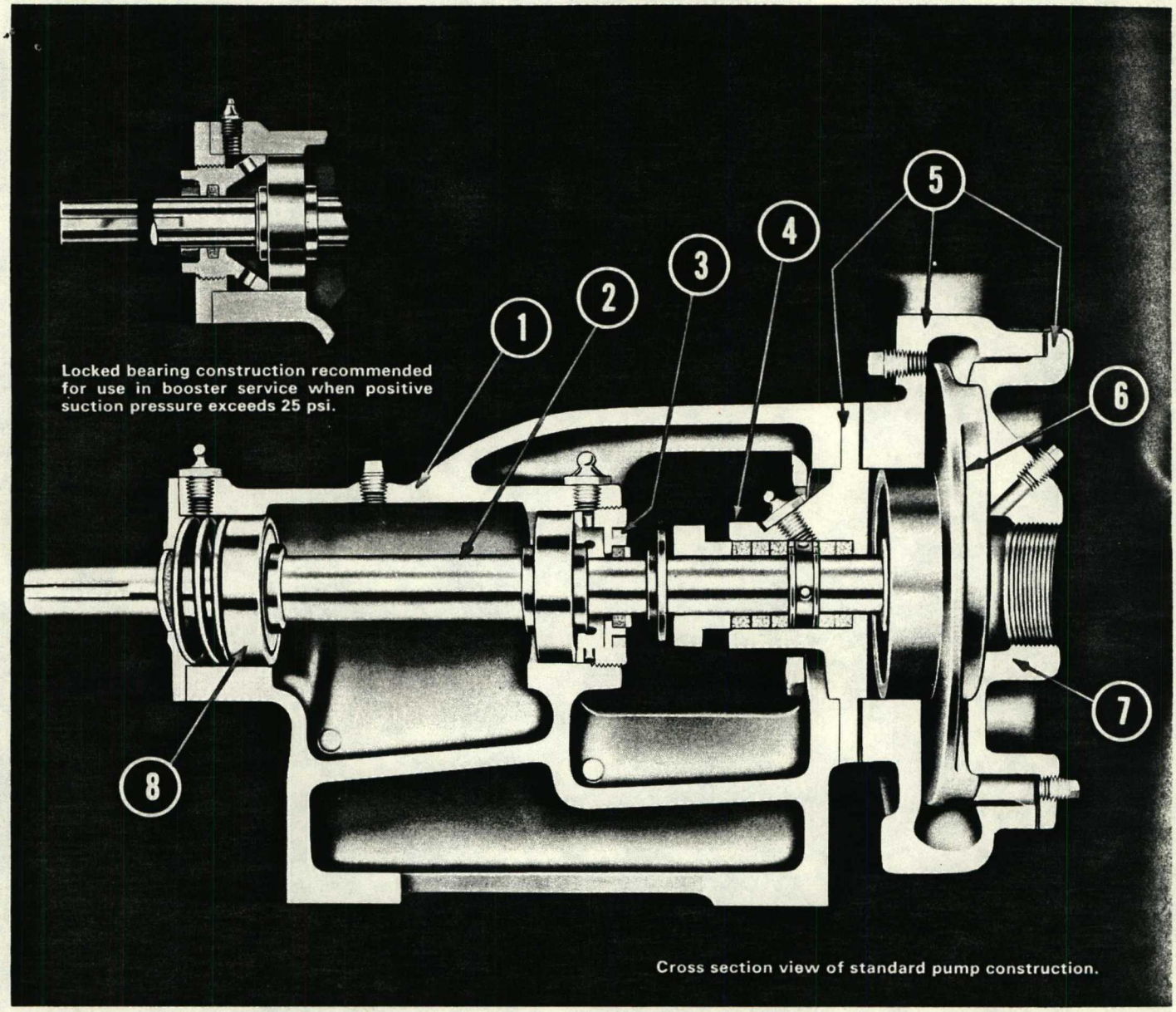
All pumps listed in selection tables are furnished with right hand rotation, i.e., when looking towards pump from driving end, impeller rotates in a clockwise motion (indicated by arrow on casing). Left hand pumps (counter-clockwise rotation) are available in the following sizes:

Fig. 4001—Nos. 1, 1½ and 2½
Fig. 4011—Nos. 1¼S, 1½S, 2S, 1½M, 2M, 3M, and 4M
Fig. 4021—Nos. 1½L, 1½M, 2M, 3M, 4M, 5M, and 5MS
Fig. 4021H—Nos. 1¼S, 1½S, 2S, 2M, 3M

Pumps are available in sizes from 1- to 6-inch discharge, capacities to 1500 gallons per minute; heads to 250 feet (see selection tables).

Flanged connections are standard construction on all pumps with discharge 3" and larger . . . optional on smaller sizes except 2½". Flanges are 125 lb. ASA for cast iron and bronze, 150 lb. ASA flat faced for stainless steel alloys





Locked bearing construction recommended for use in booster service when positive suction pressure exceeds 25 psi.

Cross section view of standard pump construction.

DESIGN FEATURES

1. FRAME – Heavy duty cast iron with precision bore provides rigid support for rotating assembly.
2. SHAFT – Large diameter shaft supported by two widely spaced ball bearings provides smooth quiet operation.
3. SHAFT ADJUSTING NUT – Permits axial adjustment of impeller – for regulation of capacity and head and to compensate for wear without dismantling pump.
4. STUFFING BOX – Furnished as standard with packing, lantern ring, and split gland for easy servicing. Special stuffing boxes or mechanical seals are available (See page 4).
5. LIQUID END – Four-piece assembly with separate suction head permits easy access to impeller, low cost maintenance. Standard cast iron construction designed for working pressure of 150 psi. Can be manufactured of other materials to meet special applications without changing power end.
6. IMPELLER–Semi-open adjustable impeller with extra heavy vanes gives outstanding performance and wear resistance. Impeller keyed to shaft with precision taper fit to assure easy impeller removal and perfect alignment (see page 4).
7. SUCTION HEAD – Separately removable, permits inspection and servicing without disturbing discharge piping or pump alignment.
8. BEARINGS – Two widely spaced ball bearings provide solid shaft support. Fig. 4021 frame has a double row bearing at the stuffing box end. Fig. 4021H frame has larger shaft with double row bearings at both ends.

INTERCHANGEABILITY – Figs. 4011, 4021 and 4021H power frames are each suitable for several sizes of liquid ends. In addition, Figs. 4011, 4021 and 4021H liquid ends thru 3″ are interchangeable. This permits 4011 liquid ends to be assembled on 4021 power frames thus providing a much heavier pump for heavy duty service. Selection tables indicate the most suitable combinations for various pumping conditions.

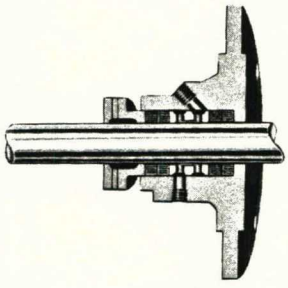
CONSTRUCTION FEATURES

STANDARD STUFFING BOX CONSTRUCTION

Extra-deep with ample space for five rings of die-formed packing plus a lantern ring. A lubrication fitting at the lantern ring provides for a grease seal against air leakage into pump, and prolongs life of packing.

For high suction lift, grease fitting may be replaced with flexible tubing from tapped opening on pump discharge to provide a liquid seal.

FLUSHING TYPE STUFFING BOX

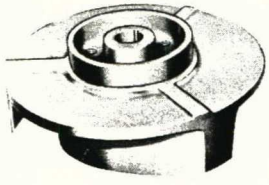


Flushing-type stuffing box

This construction is ideal for shaft cooling, or high vacuum sealing. This option is recommended on pumps operating at or above 212°F.

SEMI-OPEN IMPELLER

Suction side



Balance side

Impellers are of the solids-handling type with extra heavy vanes. Semi-open, these impellers permit passage of dirty liquids and/or liquids containing foreign material.

Running clearance between suction side of impeller and casing is adjustable to compensate for wear or regulate capacity. This axial adjustment feature is standard on all sizes.

This impeller with wiping vanes on balance side is suitable for handling liquids with lime, chips, or other similar solids which tend to coat metal surfaces or clog space between casing and impeller.

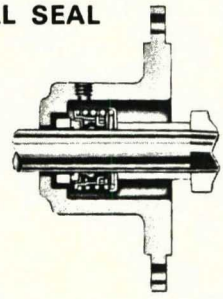
NOTE: Wiping vanes are not available on Fig. 4021H, Size 6ML

MECHANICAL SHAFT SEAL

A mechanical shaft seal can be furnished in lieu of a stuffing box. The mechanical seal requires a different housing, and a chrome plated or stainless steel shaft. Existing installations with stuffing box construction can be converted by substituting proper parts.

SINGLE MECHANICAL SEAL

Recommended for clear liquids at temperatures not exceeding 180°F. A portion of the liquid being pumped is recirculated from the discharge through the seal chamber as a lubricant and coolant.



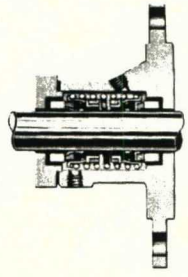
SINGLE MECHANICAL SEAL WITH CHOKER RING

Recommended for general hot water circulating service with clear water at temperatures up to 225°F. A portion of the water being pumped is recirculated from the discharge to pressurize the seal chamber, and to keep the liquid from vaporizing. The choker ring or throat bushing restricts the flow back to the impeller. For higher temperatures, or more severe service conditions, a heat exchanger may be used to cool the liquid being recirculated to an optimum 160°F.

DOUBLE MECHANICAL SEAL

Recommended when liquid being pumped is abrasive, non-lubricating, or at temperatures exceeding the design limitations for single seals. The seal chamber must be pressurized, either with liquid from the pump discharge through a filter or with clear liquid from an outside source.

NOTE: For special seal applications, refer conditions to factory for recommendations.



Materials of Construction

PART	Std. All Iron	Bronze Fitted	All Bronze	*Special Metal
Frame	Cast Iron	Cast Iron	Cast Iron	Cast Iron
Suction Head	Cast Iron	Cast Iron	Bronze	Metal Specified
Casing	Cast Iron	Cast Iron	Bronze	Metal Specified
Impeller	Cast Iron	Bronze	Bronze	Metal Specified
Shaft	SAE 1045 Steel	Stainless	Stainless	Metal Specified
Stuffing Box	Cast Iron	Cast Iron	Bronze	Metal Specified
Lantern Ring	Cast Iron	Bronze	Bronze	Metal Specified
Gland	Cast Iron	Cast Iron	Bronze	Metal Specified

SELECTION TABLE

Motor Driven—1750 R.P.M. Figs. 4001, 4011, 4021 and, 4021H

Performance for Fig. 4001 | Performance for Fig. 4011 | Performance for Fig. 4021 and 4021H

TOTAL HEAD—In Feet																
	10	15	20	25	30	35	40	50	60	70	80	90	100	120	140	150
Capacity In G.P.M.	Unit No. or Std. Imp. Dia. Size H.P.	Unit No. or Std. Imp. Dia. Size H.P.	Unit No. or Std. Imp. Dia. Size H.P.	Unit No. or Std. Imp. Dia. Size H.P.	Unit No. or Std. Imp. Dia. Size H.P.	Unit No. or Std. Imp. Dia. Size H.P.	Unit No. or Std. Imp. Dia. Size H.P.	Unit No. or Std. Imp. Dia. Size H.P.	Unit No. or Std. Imp. Dia. Size H.P.	Unit No. or Std. Imp. Dia. Size H.P.	Unit No. or Std. Imp. Dia. Size H.P.	Unit No. or Std. Imp. Dia. Size H.P.	Unit No. or Std. Imp. Dia. Size H.P.	Unit No. or Std. Imp. Dia. Size H.P.	Unit No. or Std. Imp. Dia. Size H.P.	
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	432 1¼S ¾	433 1¼S 1	434 1¼S 1½	441 1½M 3	441 1½M 3	442 1½M 5	442 1½M 5	445 1½L 7½	446 1½L 10	.....
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	432 1¼S ¾	434 1¼S 1½	434 1¼S 1½	441 1½M 3	441 1½M 3	442 1½M 5	442 1½M 5	445 1½L 7½	446 1½L 10	.....
40	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	432 1¼S ¾	434 1¼S 1½	434 1¼S 1½	441 1½M 3	441 1½M 3	442 1½M 5	442 1½M 5	445 1½L 7½	446 1½L 10	.....
50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	433 1¼S 1	434 1¼S 1½	434 1¼S 1½	441 1½M 3	442 1½M 5	442 1½M 5	442 1½M 5	445 1½L 7½	446 1½L 10	.....
60	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	433 1¼S 1	434 1¼S 1½	439 1½S 2	441 1½M 3	442 1½M 5	442 1½M 5	442 1½M 5	445 1½L 7½	446 1½L 10	.....
70	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	433 1¼S 1	434 1¼S 1½	434 1¼S 1½	439 1½S 2	441 1½M 3	442 1½M 5	442 1½M 5	442 1½M 5	445 1½L 7½	446 1½L 10	.....
80	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	438 1½S 1½	438 1½S 1½	439 1½S 2	439 1½S 2	441 1½M 3	442 1½M 5	442 1½M 5	458 2M 7½	445 1½L 7½	446 1½L 10	.....
90	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	438 1½S 1½	438 1½S 1½	439 1½S 2	454 2S 3	441 1½M 3	442 1½M 5	442 1½M 5	442 2M 7½	445 1½L 7½	446 1½L 10	.....
100	[illegible]	[illegible]	[illegible]	437 1½S 1	438 1½S 1½	438 1½S 1½	438 1½S 1½	439 1½S 2	441 1½M 3	441 1½M 3	441 1½M 5	442 1½M 5	458 2M 7½	445 1½L 7½	446 1½L 10	.....
125	[illegible]	[illegible]	[illegible]	[illegible]	438 1½S 1½	439 1½S 2	439 1½S 2	454 2S 3	441 1½M 3	442 1½M 5	442 1½M 5	458 2M 7½	458 2M 7½	446 1½L 10	446 1½L 10	.....
150	[illegible]	[illegible]	[illegible]	[illegible]	452 2S 1½	453 2S 2	453 2S 2	454 2S 3	442 1½M 5	442 1½M 5	442 1½M 5	458 2M 7½	445 1½L 7½	446 1½L 10	.....	.....
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	464 3S 5	457 2M 5	458 2M 7½	458 2M 7½	458 2M 7½	469 3M 15	.....	.....	.....
250	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	464 3S 5	464 3S 5	458 2M 7½	458 2M 7½	458 2M 7½	468 3M 10	469 3M 15	.....	.....	.....
300	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	464 3S 5	464 3S 5	466 3M 5	467 3M 7½	467 3M 7½	468 3M 10	468 3M 10	469 3M 15	.....	.....	.....
[illegible]	480 4S 2	480 4S 2	481 4S 3	464 3S 5	464 3S 5	464 3S 5	466 3M 5	483 4S 7½	468 3M 10	468 3M 10	468 3M 10	469 3M 15	.....	.....	.....	.....
[illegible]	481 4S 3	481 4S 3	481 4S 3	482 4S 5	482 4S 5	482 4S 5	483 4S 7½	483 4S 7½	468 3M 10	469 3M 15	469 3M 15	474 3M 15	.....	.....	.....	.....
[illegible]	482 4S 5	482 4S 5	482 4S 5	482 4S 5	483 4S 7½	483 4S 7½	483 4S 7½	473 4M 10	474 4M 15	474 4M 15	474 4M 15	494 5MS 20	.....	.....	.....	.....
700	482 4S 5	482 4S 5	483 4S 7½	483 4S 7½	483 4S 7½	483 4S 7½	473 4M 10	474 4M 15	474 4M 15	474 4M 15	474 4M 15	479 5M 20	.....	.....	.....	.....
[illegible]	476 5M 10	476 5M 10	476 5M 10	476 5M 10	476 5M 10	476 5M 10	477 5M 15	477 5M 15	477 5M 15	478 5M 20	478 5M 20	.....	.....	.....	.....	.....
900	476 5M 10	476 5M 10	476 5M 10	476 5M 10	476 5M 10	477 5M 15	477 5M 15	477 5M 15	478 5M 20	478 5M 20	479 5M 25	.....	.....	.....	.....	.....
1000	496 6M 10	496 6M 10	496 6M 10	496 6M 10	477 5M 15	477 5M 15	477 5M 15	478 5M 20	478 5M 20	479 5M 25	489H 6ML 40	.....	.....	.....	.....	.....
1200	496 6M 10	496 6M 10	497 6M 15	497 6M 15	497 6M 15	497 6M 15	498 6M 20	498 6M 20	499 6M 25	489H 6ML 40	489H 6ML 40	.....	.....	.....	.....	.....
1	497 6M 15	497 6M 15	497 6M 15	498 6M 20	498 6M 20	498 6M 20	499 6M 25	499 6M 25	499 6M 25	489H 6ML 40	.....	.....	.....	.....	.....	.....

For higher capacities, refer to Crane-Deming fig. 4060 series pumps in catalog section 14B.

Motor selections are based upon drip-proof motors which have 15% service factor. Totally enclosed and explosion-proof motors do not have this service factor. If substituted for drip-proof motors, it may be necessary, under certain specific operating conditions, to cut the impeller diameter or use the next size larger motor.

Pump casings and impellers are designated as follows: "S" indicates suitable casings for impellers up to 8 inch maximum diameter. "M" indicates casings suitable for impellers up to 10 inch maximum diameter. "L" indicates casings suitable for impellers up to 12 inch maximum diameter.

SELECTION TABLE

Motor Driven—3500 R.P.M. Figs. 4001, 4011, 4021 and 4021H

■ Performance for Fig. 4001 ■ Performance for Fig. 4011 □ Performance for Fig. 4021 and 4021H

For more accurate selection refer to performance curves to determine the impeller diameter and motor horsepower required for the actual operating conditions.

	TOTAL HEAD—In Feet											
	40	50	60	80	100	120	140	160	180	200	220	240
Capacity in G.P.M.	Unit No. or Std. Imp. Dia. Size H.P.	Unit No. or Std. Imp. Dia. Size H.P.	Unit No. or Std. Imp. Dia. Size H.P.	Unit No. or Std. Imp. Dia. Size H.P.	Unit No. or Std. Imp. Dia. Size H.P.	Unit No. or Std. Imp. Dia. Size H.P.	Unit No. or Std. Imp. Dia. Size H.P.	Unit No. or Std. Imp. Dia. Size H.P.	Unit No. or Std. Imp. Dia. Size H.P.	Unit No. or Std. Imp. Dia. Size H.P.	Unit No. or Std. Imp. Dia. Size H.P.	Unit No. or Std. Imp. Dia. Size H.P.
10	505 1 1	505 1 1	505 1 1	507 1 2	508 1 3	508 1 3	509 1 5	509 1 5	.....	.....	.....	.....
20	505 1 1	505 1 1	505 1 1	507 1 2	508 1 3	508 1 3	509 1 5	509 1 5	.....	.....	.....	.....
30	505 1 1	505 1 1	506 1 1¼	507 1 2	508 1 3	508 1 3	509 1 5	534H 1¼S 7½	534H 1¼S 7½	534H 1¼S 7½	535H 1¼S 10	535H 1¼S 10
40	505 1 1	505 1 1	506 1 1¼	507 1 2	508 1 3	508 1 3	509 1 5	534H 1¼S 7½	534H 1¼S 7½	535H 1¼S 10	535H 1¼S 10	535H 1¼S 10
50	505 1 1	505 1 1	506 1 1¼	507 1 2	508 1 3	508 1 3	509 1 5	534H 1¼S 7½	534H 1¼S 7½	535H 1¼S 10	535H 1¼S 10	535H 1¼S 10
60	505 1 1	506 1 1¼	506 1 1¼	507 1 2	508 1 3	509 1 5	509 1 5	534H 1¼S 7½	534H 1¼S 7½	535H 1¼S 10	535H 1¼S 10	535H 1¼S 10
70	505 1 1	506 1 1¼	507 1 2	508 1 3	508 1 3	509 1 5	509 1 5	534H 1¼S 7½	535H 1¼S 7½	535H 1¼S 10	535H 1¼S 10	535H 1¼S 10
80	506 1 1¼	507 1 2	507 1 2	508 1 3	508 1 3	509 1 5	514 1¼ 7½	534H 1¼S 7½	534H 1¼S 7½	535H 1¼S 10	535H 1¼S 10	535H 1¼S 10
90	.....	507 1 2	508 1 3	508 1 3	509 1 5	509 1 5	514 1¼ 7½	534H 1¼S 7½	534H 1¼S 7½	535H 1¼S 10	535H 1¼S 10	535H 1¼S 10
100	.....	512 1¼ 3	512 1¼ 3	512 1¼ 3	513 1¼ 5	514 1¼ 7½	514 1¼ 7½	534H 1¼S 7½	535H 1¼S 10	535H 1¼S 10	535H 1¼S 10	539H 1½S 15
125	.....	512 1¼ 3	512 1¼ 3	513 1¼ 5	513 1¼ 5	514 1¼ 7½	514 1¼ 7½	538H 1½S 10	538H 1½S 10	539H 1½S 15	539H 1½S 15	539H 1½S 15
150	.....	512 1¼ 3	512 1¼ 3	513 1¼ 5	513 1¼ 5	514 1¼ 7½	538H 1½S 10	538H 1½S 10	538H 1½S 10	539H 1½S 15	539H 1½S 15	554H 2S 20
175	.....	513 1¼ 5	513 1¼ 5	513 1¼ 5	514 1¼ 7½	514 1¼ 7½	538H 1½S 10	538H 1½S 10	539H 1½S 15	539H 1½S 15	554H 2S 15	554H 2S 20
200	.....	550 2S 5	550 2S 5	551 2S 7½	551 2S 7½	552 2S 10	552 2S 10	553H 2S 15	553H 2S 15	554H 2S 20	554H 2S 20	554H 2S 20
225	.....	550 2S 5	550 2S 5	551 2S 7½	551 2S 7½	552 2S 10	553H 2S 15	553H 2S 15	553H 2S 15	554H 2S 20	554H 2S 20	554H 2S 20
250	.....	551 2S 7½	551 2S 7½	551 2S 7½	552 2S 10	552 2S 10	553H 2S 15	553H 2S 15	553H 2S 15	554H 2S 20	554H 2S 20	.....
275	.....	551 2S 7½	551 2S 7½	551 2S 7½	552 2S 10	553H 2S 15	553H 2S 15	553H 2S 15	554H 2S 20	554H 2S 20	554H 2S 20	.....
300	.....	517 2½ 7½	517 2½ 7½	518 2½ 10	519 1½ 15	557H 2M 15	558H 2M 20	558H 2M 20	558H 2M 20	.....	.....	.....
350	.....	517 2½ 7½	518 2½ 10	518 2½ 10	519 2½ 15	567H 3M 20	567H 3M 20	568H 3M 25	.....	.....	.....	.....
400	.....	518 2½ 10	518 2½ 10	519 2½ 15	519 2½ 15	567H 3M 20	567H 3M 20	568H 3M 25	.....	.....	.....	.....
450	.....	518 2½ 10	518 2½ 10	519 2½ 15	567 3M 20	567H 3M 20	568H 3M 25	.....	.....	.....	.....	.....
500	.....	566 3M 15	566 3M 15	567H 3M 20	567H 3M 20	567H 3M 20	568H 3M 25	.....	.....	.....	.....	.....
550	.....	566 3M 15	566 3M 15	567H 3M 20	567H 3M 20	568H 3M 25	.....	.....	.....	.....	.....	.....

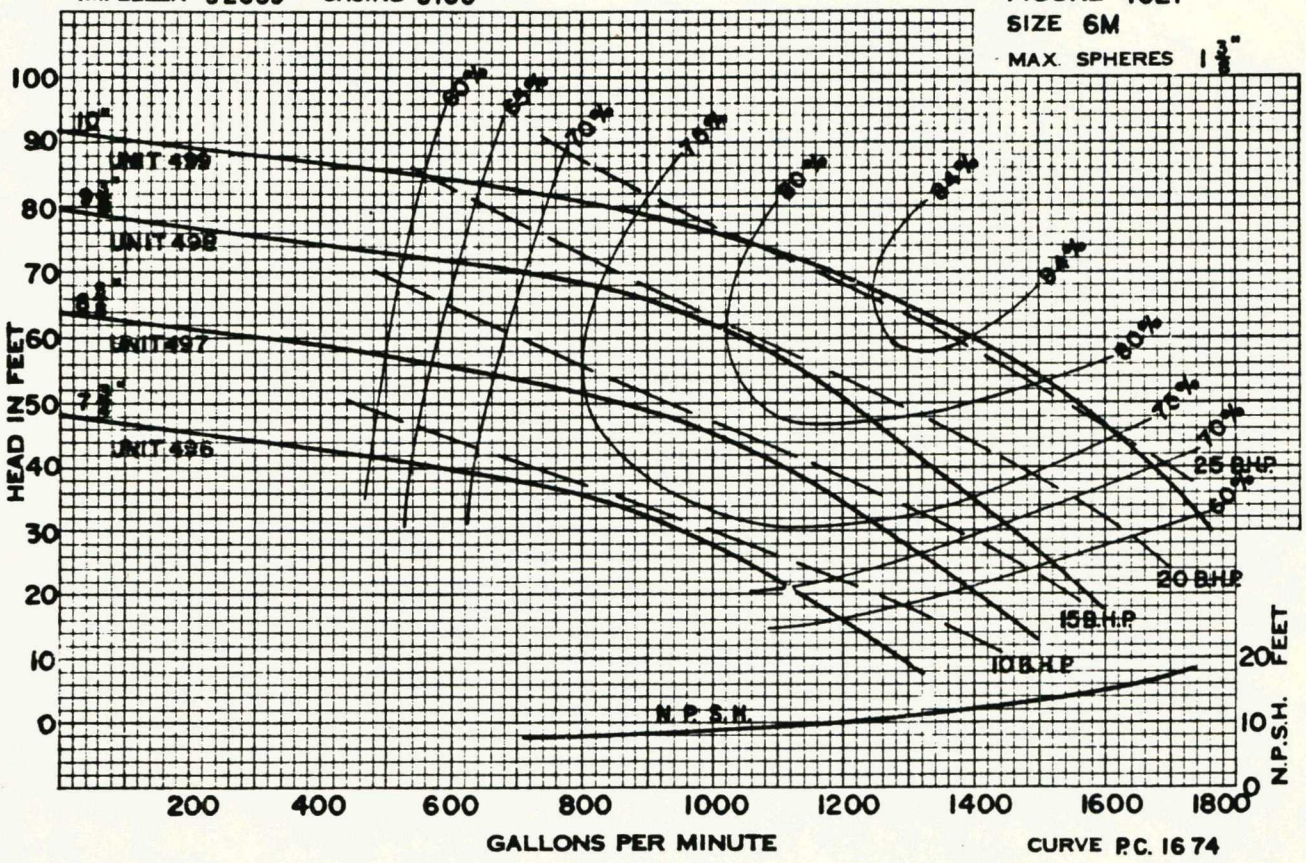
Motor selections are based upon drip-proof motors which have 15% service factor. Totally enclosed and explosion-proof motors do not have this service factor. If substituted for drip-proof motors, it may be necessary, under certain specific operating conditions ,to cut the impeller diameter or use the next size larger motor.

Pump casings and impellers are designated as follows:

"S" indicates casings suitable for impellers up to 8 inch maximum diameter. "M" indicates casings suitable for impellers up to 10 inch maximum.

SUCTION 6" DISCHARGE 6"
IMPELLER 32639 CASING 5163

1750 R.P.M.
FIGURE 4021
SIZE 6M
MAX. SPHERES 1 3/8"

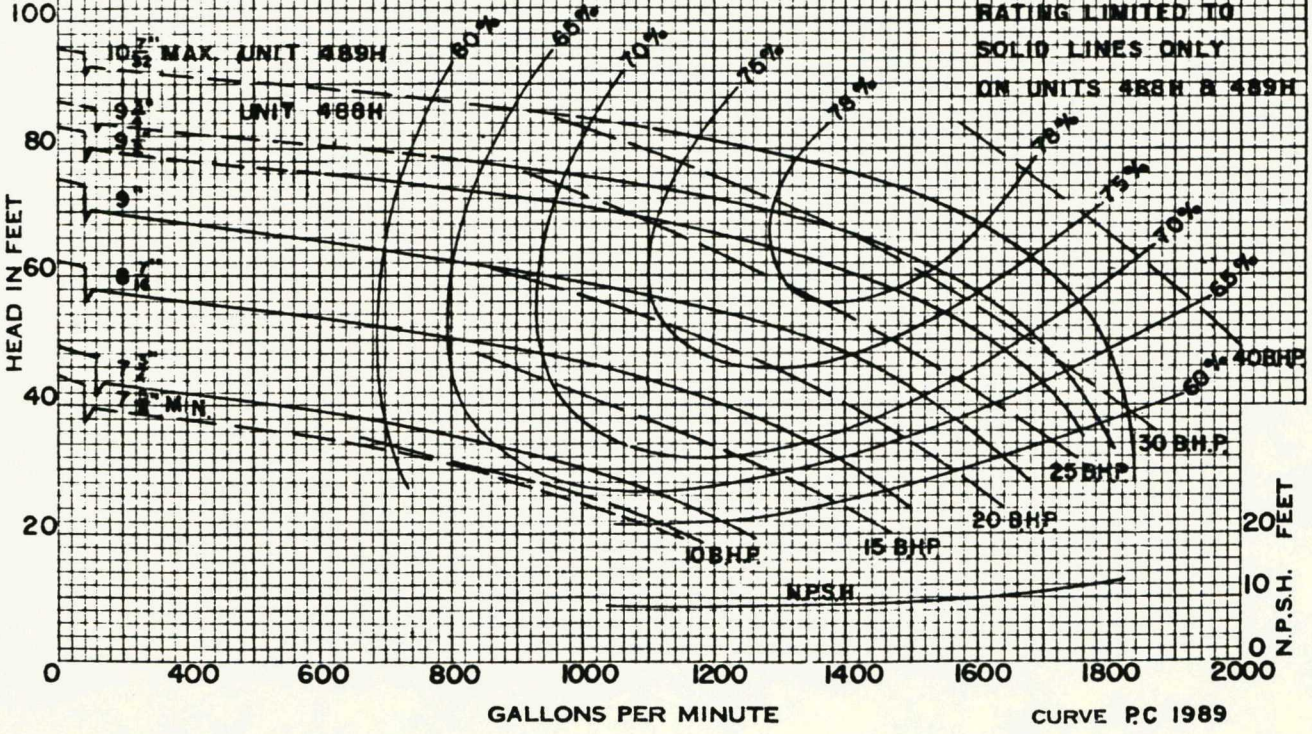


CURVE P.C. 1674

SUCTION 6" DISCHARGE 6"
IMPELLER 33080 CASING 5163

1750 R.P.M.
FIGURE 4021
SIZE 6ML
MAX. SPHERES 1 3/16"

RATING LIMITED TO SOLID LINES ONLY ON UNITS 488H & 489H

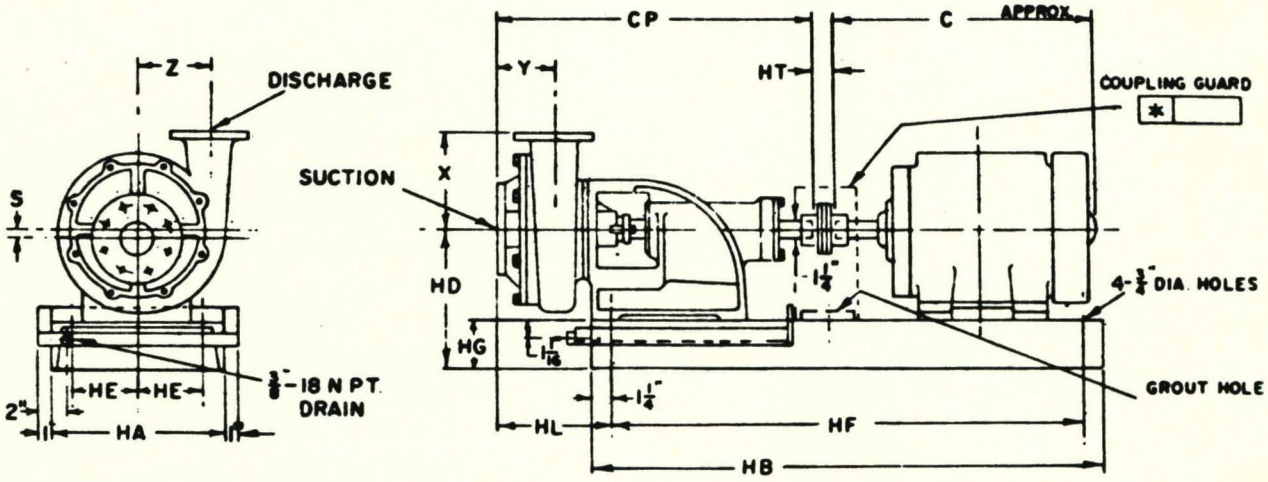


CURVE P.C. 1989

Customer
Pump Data
Cust. No.
Crane-Deming No.
Rating GPM Ft. RPM Date

DIMENSIONS OF PUMPS WITH TYPE C DRIP LIP STEEL BASE, COUPLING AND MOTOR

FIG. 4021 (OR 4021 H) – SIZES 3S, 3M, 4M, 4MS, 5M, 5MS, 6M AND 6ML
– SIZES 1¼S, 1½S, 1½M, 1½L, 2S AND 2M (SPECIAL FLANGED)

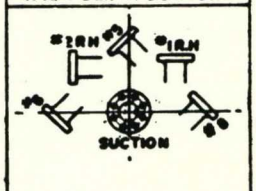


PUMP SIZE	SUCTION (125#) SIZE	DIA. FLG.	BOLTS	BOLT CIRCLE	DISCHARGE (125#) SIZE	DIA. FLG.	BOLTS	BOLT CIRCLE	X	Y	Z	CP	HL	S
1¼S	1¼	5	4-½	3⅞	1¼	4⅜	4-½	3¼	6	3⅜	4⅜	23⅛	6 13/16	–
1½S	2	6	4-⅝	4¾	1½	5	4-½	3⅝	5¾	3¾	4⅜	23½	7 3/16	–
1½M	2	6	4-⅝	4¾	1½	5	4-½	3⅞	6½	3¾	5¾	23⅜	7 3/16	–
1½L	2	6	4-⅝	4¾	1½	5	4-½	3⅞	7½	3¾	6¾	23⅜	7 3/16	–
2S	2½	7	4-⅝	5½	2	6	4-¾	4¾	6¼	3⅞	4⅜	23¼	7 3/16	–
2M	3	7½	4-⅝	6	2	6	4-¾	4¾	7	3⅞	5¾	23⅞	7 3/16	–
3S	4	9	8-¾	7½	3	7½	4-¾	6	7	5⅛	5¼	26	9¾	–
3M	4	9	8-¾	7½	3	7½	4-¾	6	8	5⅛	6¼	26	9¾	–
4M 4MS	5	10	8-¾	8½	4	9	8-¾	7½	9	6⅛	6½	26⅜	10 3/16	½
5M 5MS	6	11	8-¾	9½	5	10	8-¾	8½	9	6	7⅛	26½	10 3/16	½
6M 6ML	6	11	8-¾	9½	6	11	8-¾	9½	9	6¼	8	26⅞	10 3/16	–

FRAME NO.	143T	145T	182T	184T	213T	215T	254T	256T	284TS	284T	286TS	286T	324TS	324T	326TS	326T	364TS	364T	365TS	365T
BASE NO.	27501	27502	27502	27503	27503	27503	27504	27505	27504	27505	27505	27505	27507	27507	27507	27507	27507	27507	27507	27508
HA	12	12	12	12	12	12	15	15	15	15	15	15	18	18	18	18	18	18	18	18
HB	28	32	32	36	36	36	40	43	40	43	43	43	46	46	46	46	46	46	46	51
C	13⅛	13⅛	14⅜	15⅜	17¾	19¼	22⅞	24⅜	24½	25⅞	26	27⅜	27¼	28¾	28¾	30¼	31	33⅛	32	34⅛
HD	10	10	10	10	10	10	10	10	10	10	10	10	12	12	12	12	13	13	13	13
HE	4¾	4¾	4¾	4¾	4¾	4¾	6	6	6	6	6	6	7½	7½	7½	7½	7½	7½	7½	7½
HF	25½	29½	29½	33½	33½	33½	37½	40½	37½	40½	40½	40½	43½	43½	43½	43½	43½	43½	43½	48½
HG	3	3	3	3	3	3	3⅜	3⅜	3	3⅜	3⅜	3⅜	4	4	4	4	4	4	4	4
HT	¾	¾	¾	¾	¾	¾	1	1	1	1	1	1	1	1	1	1	1	1	1	1

NOTE * . FURNISHED IF CHECKED

LOCATION OF DISCHARGE WHEN FACING SUCTION
R.H. PUMP POSITION



DISCHARGE POSITIONS SHOWN EACH 45°

CUSTOMER								CO. NO.	
PROJECT NAME					CONTRACTOR ENGINEER				
CUSTOMER IDENT. NO.									
PUMP DATA	FIG. NO.	SIZE	CURVE NO.	G.P.M.	HEAD	SP. GR.	TEMP	ROTATION	PACKING/SEAL
MOTOR DATA	MFGR.	H.P.	R.P.M.	PHASE-CYCLE-VOLTAGE		FRAME	ENCLOSURE	INSULATION	FURNISHED BY / MOUNTED BY
SHOP ORDER NO.				CERTIFIED BY				DATE	